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10/567,974

02/10/2006

T. Howard Killilea

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EXAMINER

NILAND, PATRICK DENNIS

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/567,974	Applicant(s) KILLILEA, T. HOWARD	
	Examiner Patrick D. Niland	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 July 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>7/15/08</u> . | 6) <input type="checkbox"/> Other: _____ |

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1. The amendment of 7/14/08 has been entered. Claims 1-37 are pending.

The reference to the search report on the IDS of 7/15/08 has been lined through because it is not prior art under 37 CFR 1.97 or 1.98.

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claim 24 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

A. Claim 24 requires placing the sulfonate group into the polyurethane by use of 5-sulfo-isophthalic acid or salts thereof. This encompasses using the acid or groups other than OH groups of the polyol of claim 1. This newly added scope is not supported by the originally filed application and is therefore new matter.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 24 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A. A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the

resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 24 recites the broad recitation "comprises 5-sulfo-isophthalic acid or salts thereof" "sulfonated polyol" (from claim 1 limitations), and the claim also recites "sulfonated polyol" which is the narrower statement of the range/limitation. It is unclear if the requirements of the narrower limitation, e.g. "polyol", are required of the broader recitation or not.

6. Claim 24 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

A. Claim 1 requires a sulfonated polyol. Claim 24, which depends from claim 1 broadens sulfonated polyol to "comprises 5-sulfo-isophthalic acid or salts thereof" which encompasses moieties other than polyols thereby broadening claim 1.

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat. No. 6166127 Tomko in view of US Pat. No. 5422392 Floyd et al., US Pat. No. 5124424 Endo et al., and US Pat. No. 4977207 Hoefer et al..

Tomko discloses the instantly claimed invention except for the instantly claimed VOC. See the entire document. It is noted that Tomko does not disclose a reactant falling within the scope of that of the instant claims 3 and 37. However, since the claim is directed to the polyurethane of the claimed composition and the urethane contains a moiety meeting the requirements of claims 3 and 37 (e.g. a smaller portion of the urethane containing sulfonate and ethylenic groups as well as perhaps other urethane groups) and the skilled artisan could not tell how said moiety got there while looking only at the final urethane, the polyurethane of the patentee falls within the scope of the instant claims 3 and 37. See MPEP 2112-2113. In other words the final product of the instant claims directed to the polyurethane per se is not distinguishable from that of the prior art do to this process-type/intermediate reactant limitation. It is the same issue regarding the recitation of “sulfonated polyol”. The final polyurethane contains sulfonate groups, polyol moieties, isocyanate moieties, etc. The final urethane can be examined at a sulfonate group, which backbone chain can be followed to the closest two OH residues so as to give at least the

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appearance that the sulfonate was incorporated via a sulfonated polyol. Furthermore, the ordinary skilled artisan would understand that, since a polyurethane is the ultimate product, the sulfonate group discussed by Tomko at column 5, line 9, which encompasses sulfonated diols, and column 5, line 65, which coupled with column 5, line 9 clearly encompasses sulfonated diols, the sulfonate group is intended to be incorporated by sulfonated diol which is a sulfonated polyol of the instant claims. It would also have been obvious to one of ordinary skill in the art at the time of the instant invention to use the instantly claimed sulfonated polyol to incorporate the sulfonate groups of Tomko into their polyurethane because Hoefer shows this to be an equivalent method to the use of dimethylolpropionic acid at column 4, lines 6-12, Tomko clearly encompasses the use of sulfonated diols as discussed above, and their well known dispersing benefits would have been expected in the polyurethane of Tomko.

It would have been obvious to one of ordinary skill in the art at the time of the instant invention to use the instantly claimed VOC in preparing the product of Tomko because such VOCs will meet current regulations regarding VOC, eliminate expensive and dangerous organic solvents, and are a well known expedient in the making of aqueous urethanes as taught by Floyd et al. which would have been expected to give the benefits of low VOC to the dispersions of Tomko. The motivation and understanding by the ordinary skilled artisan that VOC must and can be eliminated or minimized is thus within the state of the art at the time of the instantly claimed invention.

It would have been obvious to one of ordinary skill in the art at the time of the instant invention to use the instantly claimed 5-sulfo-isophthalic acid or salts thereof of the instant claim 24 in the polyurethane of Tomko for the reasons stated above regarding using sulfonate polyols

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in the polyurethane to make it water dispersible and because Endo, column 3, line 64 to column 4, line 54, particularly column 4, lines 50-54 and the properties of this known means of incorporating the water dispersible sulfonate groups of Tomko into such polyurethanes would have been expected in the final polyurethane dispersion discussed above.

The applicant's argument "There is no teaching or suggestion in either Tomko or Floyd to modify or to combine their disclosures to obtain applicants' claims." is not persuasive as this is not required to make an obviousness rejection. In fact such a specific interpretation would almost necessarily require references to be anticipating to be able to make obviousness rejections. This is clearly not the case. The examiner maintains that the above rejection meets the requirements of *Graham v. Deere* and is consistent with the *KSR International Co. v. Teleflex Inc.*, 550 U.S.---, 82 USPQ2d 1385 (2007) because the above rejection sets forth the state of the art as including the use of reduced VOC content in aqueous coating compositions which are similar in compositions to those of Tomko and the motivation to do so, which is supported at columns 1-2 at least of Floyd. These benefits would clearly be seen in the composition of Tomko and no unexpected results commensurate in scope with the cited prior art and the instant claims are seen stemming from the difference in Tomko and the instant claims.

The applicant's argued interpretation of the instant claims is that they require a composition which has a polyurethane having ethylenic groups and a second polymer formed from unsaturated monomers in the presence of the sulfonated polyurethane polymer. Arguments relating to the Matsumoto et al. rejections stated that grafting was excluded by the instantly claimed inventions. As such, it is not seen that the method limitations including "formed...in the presence of the sulfonated polyurethane polymer" distinguish the instant claims, including the

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applicant's interpretation thereof, over the cited prior art. The instant claims are directed to compositions per se, not the methods of making them. Based on the applicant's own interpretation of their claims, it would appear that the composition of Tomko would have the instantly claimed polymers and that the method of polymerizing the unsaturated monomers in the presence of the polyurethane would not itself differentiate the instant claims from the compositions of Tomko based on the applicant's argument that the instant claims exclude grafting. See MPEP 2113.

Floyd is not recited for sulfonated polyurethanes nor ethylenic polyurethanes. Its purpose is stated above. The applicant's arguments do not address the stated purpose of Floyd's recitation above.

Hoefer is in fact referenced above and in the prior rejection. Its purpose is clearly stated above and the applicant's arguments do not address this stated purpose, which is also not for teachings of sulfonated or ethylenic containing polyurethanes.

The applicant's arguments have been fully considered but are not persuasive in view of the above rejection and reasons. This rejection is therefore maintained.

10. Claims 1-23, 25, 29-32, and 34-37 are rejected under 35 U.S.C. 102(b) as being anticipated by US Pat. No. 5916965 Matsumoto et al.

Matsumoto discloses the instantly claimed inventions at the abstract and entire document which encompasses the instantly claimed compositions comprising polyurethanes having unsaturated groups and sulfonate groups from sulfonated polyols in the presence of vinyl monomers, which falls within the scope of the instant claims 1-23, 25, 29-32, and 34-37. The language of column 7, lines 39-41, particularly "can also be" and "if necessary" indicates that the

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compositions of Matsumoto do not require any VOC. Furthermore, the ordinary skilled artisan understands that liquid vinyl monomers behave as “reactive diluents”, a term that is well known and well defined in the prior art, which perform the function of VOC, thereby making VOC unnecessary. Column 4, lines 40-61 falls within the scope of the instant claims 4 and 20-23. The molecular weight of these sulfonated diacids coupled with the amount of sulfonate disclosed in the polyurethane falls within the scope of the instant claims 5-7. Column 6, line 27 et seq. falls within the scope of the instant claims 8-15. Column 6, line 46 et seq. falls within the scope of the instant claim 16. Column 5, lines 30-44 falls within the scope of the instant claims 17-19. Column 5, line 54-55 falls within the scope of the instant claims 25 and 29. Where no organic solvent is used, as is clearly encompassed by the reference, the instant claims 30-32 are met. The sulfonated polyols of the reference do not have ethylenic groups which meets the instant claims 2 and 36. The vinyl monomers are reacted to form a polymer which meets the instant claim 35. The instant claims 3 and 37 are directed to the composition per se, not the method of making it. The urethane of Matsumoto contains a moiety meeting the requirements of claims 3 and 37 (e.g. a smaller portion of the urethane molecule which contains sulfonate and ethylenic groups as well as perhaps other urethane groups meets the limitations of claims 3 and 37) and the skilled artisan could not tell how said moiety got there while looking only at the final urethane, the polyurethane of the patentee falls within the scope of the instant claims 3 and 37. See MPEP 2112-2113. In other words the final product of the instant claims 3 and 37, directed to the polyurethane per se, is not distinguishable from that of the prior art do to this process-type/intermediate reactant limitation.

The applicant's argument that the prior art discloses a graft polymer is not persuasive in overcoming the instant rejection because the instant claims do not exclude a graft polymer and polymerizing the unsaturated monomers of the instant claims in the presence of the unsaturated polyurethane is expected to necessarily inherently also produce a graft polymer and the instant claims and specification provide no claim limitations or teachings to the contrary. It is not clear to the examiner how the polymerization of unsaturated monomer in the presence of unsaturated polyurethane would not produce a graft polymer also. It is not seen that the requirement of the sulfonated polyurethane polymer comprises ethylenic groups is not referencing the polyurethane of "a)" of the instant claims. This limitation is not clearly required after the polymerization of step b of the instant claims. The instant claims do not specifically require the polymerized unsaturated monomers to form a polymer that is not grafted to the polyurethane having ethylenic groups. The claims are therefore taken as encompassing the graft polymer of the cited prior art. The applicant's arguments in this regard are therefore not persuasive. It is further noted that the grafted unsaturated/vinyl monomer segments grafted onto the polyurethane of the patentee and which would appear to graft onto the polyurethane of the instant claims remains distinct chains which can be referenced as polymers in their own right when referencing the grafted chains of the final graft polymer. As such, there is no language which specifically precludes the vinyl or unsaturated monomers of the instant claims from grafting onto the polyurethane backbone. Even if the requirement of the instant claims that the sulfonated polyurethane polymer comprises ethylenic groups is required after step b, the patentee encompasses a deficiency of graft chains at column 2, lines 45-60 as well as the fact that degrees of polymerization are never 100% which predicts that some unsaturated groups will remain in the polyurethane and which will leave

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ethylenic groups on the graft polymer of the patentee, which meet this limitation of the instant claims by either reasonable interpretation thereof. The applicant's arguments have been fully considered but are not persuasive for the above reasons.

11. Claims 1-32 and 34-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat. No. 5916965 Matsumoto et al.

Matsumoto discloses the instantly claimed inventions at the abstract and entire document which encompasses the instantly claimed compositions comprising polyurethanes having unsaturated groups and sulfonate groups from sulfonated polyols in the presence of vinyl monomers, which falls within the scope of the instant claims 1-23, 25, 29-32, and 34-37. The language of column 7, lines 39-41, particularly "can also be" and "if necessary" indicates that the compositions of Matsumoto do not require any VOC. Furthermore, the ordinary skilled artisan understands that that liquid vinyl monomers behave as "reactive diluents", a term that is well known and well defined in the prior art, which perform the function of VOC, thereby making VOC unnecessary. Column 4, lines 40-61 falls within the scope of the instant claims 4 and 20-23. The molecular weight of these sulfonated diacids coupled with the amount of sulfonate disclosed in the polyurethane falls within the scope of the instant claims 5-7. Column 6, line 27 et seq. falls within the scope of the instant claims 8-15. Column 6, line 46 et seq. falls within the scope of the instant claim 16. Column 5, lines 30-44 falls within the scope of the instant claims 17-19. Column 5, line 54-55 falls within the scope of the instant claims 25 and 29. Where no organic solvent is used, as is clearly encompassed by the reference, the instant claims 30-32 are met. The sulfonated polyols of the reference do not have ethylenic groups which meets the instant claims 2 and 36. The vinyl monomers are reacted to form a polymer which meets the

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instant claim 35. The instant claims 3 and 37 are directed to the composition per se, not the method of making it. The urethane of Matsumoto contains a moiety meeting the requirements of claims 3 and 37 (e.g. a smaller portion of the urethane molecule which contains sulfonate and ethylenic groups as well as perhaps other urethane groups meets the limitations of claims 3 and 37) and the skilled artisan could not tell how said moiety got there while looking only at the final urethane, the polyurethane of the patentee falls within the scope of the instant claims 3 and 37. See MPEP 2112-2113. In other words the final product of the instant claims 3 and 37, directed to the polyurethane per se, is not distinguishable from that of the prior art do to this process-type/intermediate reactant limitation.

The applicant's argument that the prior art discloses a graft polymer is not persuasive in overcoming the instant rejection because the instant claims do not exclude a graft polymer and polymerizing the unsaturated monomers of the instant claims in the presence of the unsaturated polyurethane is expected to necessarily inherently also produce a graft polymer and the instant claims and specification provide no claim limitations or teachings to the contrary. It is not clear to the examiner how the polymerization of unsaturated monomer in the presence of unsaturated polyurethane would not produce a graft polymer also. It is not seen that the requirement of the sulfonated polyurethane polymer comprises ethylenic groups is not referencing the polyurethane of "a)" of the instant claims. This limitation is not clearly required after the polymerization of step b of the instant claims. The instant claims do not specifically require the polymerized unsaturated monomers to form a polymer that is not grafted to the polyurethane having ethylenic groups. The claims are therefore taken as encompassing the graft polymer of the cited prior art. The applicant's arguments in this regard are therefore not persuasive. It is further noted that the

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grafted unsaturated/vinyl monomer segments grafted onto the polyurethane of the patentee and which would appear to graft onto the polyurethane of the instant claims remains distinct chains which can be referenced as polymers in their own right when referencing the grafted chains of the final graft polymer. As such, there is no language which specifically precludes the vinyl or unsaturated monomers of the instant claims from grafting onto the polyurethane backbone. Even if the requirement of the instant claims that the sulfonated polyurethane polymer comprises ethylenic groups is required after step b, the patentee encompasses a deficiency of graft chains at column 2, lines 45-60 as well as the fact that degrees of polymerization are never 100% which predicts that some unsaturated groups will remain in the polyurethane and which will leave ethylenic groups on the graft polymer of the patentee, which meet this limitation of the instant claims by either reasonable interpretation thereof.

It would have been obvious to one of ordinary skill in the art at the time of the instant invention to use the instantly claimed combinations of ingredients in the compositions of Matsumoto because they are encompassed by Matsumoto, as discussed above, and would have been expected to give the properties to the final compositions of the compositions of Matsumoto.

It would have been obvious to one of ordinary skill in the art at the time of the instant invention to use the instantly claimed 5-sulfo-isophthalic acid of claim 24 in the sulfonated polyester polyol of Matsumoto because it is encompassed by column 4, lines 40-61, particularly lines 47-48 and would have been expected to give the function required by Matsumoto regarding increasing dispersion stability by the ionic nature of the neutralized sulfonate group.

It would have been obvious to one of ordinary skill in the art at the time of the instant invention to use the instantly claimed chain extenders of claims 26-28 in the polyurethane of

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Matsumoto because Matsumoto encompasses chain extension at column 5, line 55 and these are typically used chain extenders used in the polyurethane aqueous dispersion art and would have been expected to yield their usual properties to the polyurethane of Matsumoto.

The applicant's arguments have been fully considered but are not persuasive for the above reasons.

12. Claims 1-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 02/28977 Overbeek et al. in view of US Pat. No. 5124424 Endo et al., US Pat. No. 6166127 Tomko, and US Pat. No. 4977207 Hoefer et al..

Overbeek discloses the instantly claimed compositions and methods of making them at the abstract; page 1, lines 1-37 of which lines 4-6 disclose the instantly claimed unsaturated groups of the instantly claimed polyurethane (polyurethane details discussed later); page 2, lines 1-39, particularly 30-33, which encompasses the instantly claimed amounts of VOC including those of the instant claims 30-32; page 3, lines 1-38, particularly lines 24-38 and line 30 et seq., which meets the instant claims 17-19; page 4, lines 1-37, particularly 6-7, which encompasses the instantly claimed sulfonate polyols in the instantly claimed polyurethanes; page 5, lines 1-39, particularly lines 1-5, which encompasses the chain extension agent of the instant claim 25 and 29, lines 22-25 which fall within the scope of the chain extenders of the instant claims 26-28, and lines 26-34, which are the instantly claimed VOC amounts; page 6, lines 1-39; page 8, lines 18-22 and page 6, line 8 to page 8, line 17, which falls within the scope of the instant claims 8-16 and the other claimed polymers made from unsaturated monomers; and the remainder of the document. "Such as" is evidence that the carboxylic acid compounds are not limiting.

Overbeek does not disclose the instantly claimed sulfonate polyols for incorporation of their ionic groups into their urealkyd.

It would have been obvious to one of ordinary skill in the art at the time of the instantly claimed invention to incorporate the instantly claimed sulfonated polyols into the uralkyd of Overbeek to give the ionic groups thereof because it is an established means of making urethanes water dispersible as seen in the prior art as a whole as evidenced by Endo, particularly at column 3, line 64 to column 4, line 54, particularly column 4, lines 47-54 for the instant claims 20-24 and Tomko and Hoefer (pertinent sections are discussed in the above prior rejections), these groups are encompassed by Overbeeks broad recitation of ionic groups, and these ionic groups would have been expected to achieve the purpose of these ionic groups as established in the prior art cited as a whole. Based on the amount of ionic groups of Overbeek, e.g. sufficient to give aqueous dispersibility, and of Endo, column 4, lines 11-15, which are taken as illustrative of the broad range implied by Overbeek, will necessarily give the instantly claimed amounts of the instant claims 5-7 where these sulfonated compounds of the prior art are used.

It is noted that Overbeek does not disclose a reactant falling within the scope of that of the instant claims 3 and 37. However, since the claim is directed to the polyurethane of the claimed composition and the urethane discussed above re Overbeek in view of the cited secondary references contains a moiety meeting the requirements of claims 3 and 37 (e.g. a smaller portion of the urethane containing sulfonate and ethylenic groups as well as perhaps other urethane groups) and the skilled artisan could not tell how said moiety got there while looking only at the final urethane, the polyurethane of the patentee falls within the scope of the instant claims 3 and 37. See MPEP 2112-2113. In other words the final product of the instant

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claims directed to the polyurethane per se is not distinguishable from that of the prior art do to this process-type/intermediate reactant limitation.

It would have been obvious to one of ordinary skill in the art at the time of the instantly claimed invention to make the above discussed dispersion by the method of the instant claim 33 because Overbeek implies that the chain extension may be done in water at page 5, lines 22-25 of which line 25 would be understood by the ordinary skilled artisan to imply that the chain extension is done in water with the water competing with the chain extender to react with NCO groups because chain extension of prepolymers in water is conventional and well known, Overbeek discloses mixing the uralkyd with vinyl monomer prior to dispersion in water at page 5, lines 35-36, these two sections of Overbeek coupled together give the instantly claimed steps a), b), and c) of the instant claim 33 with Overbeek, page 5, line 37 giving step d) of the instant claim 33.

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

14. See 706.07(a) [R-6] Final Rejection, When Proper on Second Action regarding propriety of making this office action final.

Due to the change in practice as affecting final rejections, older decisions on questions of prematurity of final rejection or admission of subsequent amendments do not necessarily reflect present practice.

Under present practice, second or any subsequent actions on the merits shall be final, except where the examiner introduces a new ground of rejection that is neither necessitated by applicant's amendment of the claims, nor based on information submitted in an information disclosure statement filed during the period set forth in 37 CFR 1.97(c) with the fee set forth in 37 CFR 1.17(p). Where information is submitted in an information

disclosure statement during the period set forth in 37 CFR 1.97(c) with a fee, the examiner

may use the information submitted, e.g., a printed publication or evidence of public use, and make the next Office action final whether or not the claims have been amended, provided that no other new ground of rejection which was not necessitated by amendment to the claims is introduced by the examiner. See MPEP § 609.04(b).

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to 3 whose telephone number is 571-272-1121. The examiner can normally be reached on Monday to Thursday from 10 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached on 571-272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Patrick D Niland/
Primary Examiner
Art Unit 1796